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EXAMINER	
ROBERTS, JESSICA M	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/823,612	KAJIWARA, HIROSHI	
	Examiner	Art Unit	
	JESSICA ROBERTS	2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 January 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,7-10 and 24* is/are pending in the application.

4a) Of the above claim(s) *2-6 and 12-23* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,7-10, and 24* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 01/16/2009 has been entered.

Status of Claims

Claims 1, 7-10 and 24 are pending in this application. Claims **2-4, and 6** and **11** have been **canceled**. Claims **1, 9,** have been amended. Claim 24 has been added.

Response to Arguments

1. Applicant's arguments with respect to claims 1, 7-10, and 24 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 101

2. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim(s) 1, 7-8 and 10 is/are rejected under 35 U.S.C. 101 as not falling within one of the four statutory categories of invention. Supreme Court precedent[1] and recent Federal Circuit decisions[2] indicate that a statutory "process" under 35 U.S.C. 101 must (1) be tied to another statutory category (such as a particular apparatus), or (2) transform underlying subject matter (such as an article or material) to a different state or thing. While the instant claim(s) recite a series of steps or acts to be performed, the claim(s) neither transform underlying subject matter nor positively tie to another statutory category that accomplishes the claimed method steps, and therefore do not qualify as a statutory process. For example the moving image decoding method of decoding encoded moving image data, which is generated by decomposing each frame of moving image data into plurality of subbands, and encoding a plurality of coefficients for each subband from upper to lower bits for respective bitplanes or sub-bitplanes for a predetermined unit, the method including the steps of "a calculation step", "a non-decoding bitplane determination step", "a bitplane decoding step", "a subband composition step", "managing a table", "controlling", "selecting", and "setting" is of sufficient breadth that it would be reasonably interpreted as a series of steps completely performed mentally, verbally, or without a machine. The Applicant has not tied the moving image decoding method of decoding encoded moving image data, which is generated by decomposing each frame of moving image data into plurality of subbands, and encoding a plurality of coefficients for each subband from upper to lower bits for

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[1] *Diamond v. Diehr*, 450 U.S. 175, 184 (1981); *Parker v. Flook*, 437 U.S. 584, 588 n.9 (1978); *Gottschalk v. Benson*, 409 U.S. 63, 70 (1972); *Cochrane v. Deener*, 94 U.S. 780, 787-88 (1876).

[2] *In re Bilski*, 88 USPQ2d 1385 (Fed. Cir. 2008).

respective bitplanes or sub-bitplanes for a predetermined unit, the method including the steps of "a calculation step", "a non-decoding bitplane determination step", "a bitplane decoding step", "a subband composition step", "managing a table", "controlling", "selecting", and "setting" to a particular apparatus to perform the method as claimed.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claim1, 7-10 and 24 rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

5. Regarding claims 1and 9, Applicant has claimed ..."a bitplane decoding step of reclaiming the plurality of coefficients of the plurality of subbands from encoded data of bitplanes or sub-bitplanes..."

6. Applicant does not have support for this claim limitation in the specification or the disclosure. The Examiner directs to Applicant to page of the original disclosure (summary) where sub-biplane is briefly referenced, however, this does not provide adequate support for sub-bitplanes.

7. Re claim 7, which fails to remedy the issue stated above, thus claim 7 is rejected as being indefinite for depending upon claim 1.

8. Re, claim 8, which fails to remedy the issue stated above, thus claim 8 is rejected as being indefinite for depending upon claim 1.

9. Re, claim 10,which fails to remedy the issue stated above, thus claim 10 is rejected as being indefinite for depending upon claim 1.

10. Re claim 24, fails to remedy the issue stated above, thus claim 24 is rejected as being indefinite for depending upon claim 1.

11. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

12. Claims 1, 7-10 and 9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

13. Regarding claims 1 and 9, Applicant claims "controlling a value of a variable Q ..." However, it is unclear to the Examiner what "variable Q" represents. Is the variable Q defined as quantization, or quality? As best understood by the Examiner, the variable Q will be treated as representing quality, for purposes of applying prior art.

14. Re claim 7, which fails to remedy the issue stated above, thus claim 7 is rejected as being indefinite for depending upon claim 1.

15. Re claim 8, which fails to remedy the issue stated above, thus claim 7 is rejected as being indefinite for depending upon claim 1.

16. Re, claim 10, which fails to remedy the issue stated above, thus claim 7 is rejected as being indefinite for depending upon claim 1.

17. Re claim 21, which fails to remedy the issue stated above, thus claim 7 is rejected as being indefinite for depending upon claim 1.

Claim Objections

18. Claims 1 and 9 are objected to because of the following informalities:

19. Re claim 1, pg. 1 line 15, Applicant should include for each video frame, to distinguish the calculation if for a video frame.

20. Re claim 1, pg. 2 line 11 "wherein each of the plurality of candidates" should be changed to "wherein each of said candidates".

21. Re claim 1, pg. 2 line 13..."values of the plurality"... should be changed to "values of said plurality"

22. Re claim 9, pg. 5 line 18... "the plurality"... should be changed to "said plurality".

23. Re claim, 9, pg. 5 line 19 ... "increasing values of the plurality" should be changed to "increasing values of said plurality".

24. Appropriate correction is required.

Claim Rejections - 35 USC § 103

25. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

26. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

27. Claims 1-2, 4 and 6-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eiji et al., JP-2001-112004 in view of Meenakshisundaram et al., US 2006/0098742 A1 (herein referenced as "Meen") in view of Van Der Schaar et al., US-2004/0001635 in view of Sato et al., US-2003/0081847 A1 and further in view of Oki et al., US-6,751,356.

Regarding **claim 1,** Eiji teaches A moving image decoding method of decoding encoded moving image data, which is generated by decomposing each frame of moving image data into a plurality of subbands, and encoding a plurality of coefficients for each subband from upper to lower bits for respective bitplanes or sub-bitplanes for a predetermined unit, the method comprising: a non-decoding bitplane determination step of determining bitplanes or sub-bitplanes that are not to be decoded based on the time difference: (Eiji teaches that in order to decode each image frame by the step which sets up the decode processing time of the request at the time of the demanded decode, and the decode processing time of the set up request The decode processing time of the above mentioned request by the step assigned to each coding batch and the assigned decode processing time The step which carries out the entropy decode of the

separated above mentioned entropy coded data per bit plane for every coding batch, and asks for the quantized wavelet transform multiplier [0023]. Further disclosed, in order that the bit rate control section may encode each image frame, the bit rate, i.e., the target bit rate, of the request set up by the bit rate setting out section By assigning a target bit rate to each coding batch It takes into consideration whether the coded data to the bit plane of which level of each coding batch is used for generation of a coded bit stream. After controlling the number of a bit plane which gibes entropy code modulation for every coding batch or finishing encoding all bit planes, processing which takes out the required amount of data sequentially from the thing corresponding to the top bit plane is performed [0033]. Therefore, it is clear to the examiner that Eiji teaches the request is made to specify and limit the number of frames at the decoder, which reads upon the claimed limitation); a bitplane decoding step of reclaiming the plurality coefficients of the plurality of subbands from encoded data of bitplanes or sub-bitplanes other than the bitplanes or sub-bitplanes determined in the non-decoding bitplane determination step (Eiji teaches the step which carries out the entropy decode of the separated above-mentioned entropy coded data per bit plane for every coding batch, and asks for the quantized wavelet transform multiplier, the step which performs reverse quantization processing to the wavelet transform multiplier by which quantization was carried out, It has the step which performs wavelet inverse transformation to the wavelet transform multiplier by which reverse quantization was carried out, and reproduces an image frame [0023]. Therefore, it is clear to the examiner that Eiji is reclaiming coefficients from encoded data of bitstreams, since Eiji teaches decoding the separated

entropy coded data to produce an image, which reads on the claimed limitation); and a subband composition step of generating frame data by compositing the coefficients of the plurality of subbands reclaimed in the bitplane decoding step (dynamic image generating section, [0042] and fig. 3:208); Eiji is silent in regards to a calculation step of, for each frame, calculating a time difference ΔT between a decoding process time DT required to perform a decoding process and a target decoding time T for the decoding process; wherein the non-decoding bit-plane determination step includes steps of: managing a table which stores, for each subband, a plurality of candidates, wherein each of which a candidate represents a number of lower bitplanes or lower sub-bitplanes that are not to be decoded, wherein each of the plurality of candidates is associated with an index, wherein, for each subband, increasing values of the plurality of candidates are arranged in an increasing order or values of associated indices, controlling a value of a variable Q in accordance with the accumulated time difference TT; selecting a candidate associated with an index corresponding to the variable Q, for each subband from the table, and setting lower bitplanes or lower sub-bitplanes, corresponding to the selected candidate, as the bitplanes or sub-bitplanes that are not be decoded.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teachings of Meen with Eiji for providing efficient image coding.

Meen teaches a calculation step of, for each frame, calculating a time difference ΔT between a decoding process time DT required to perform a decoding process and a

target decoding time T for the decoding process (Meen teaches where a fourth measure of AV sync is the difference (_dtv) between a recovered video DTS and an actual video decoding time (LTSVD), which may be expressed as _dtv=DTS-LTSvD. [0038]).

Eiji (modified by Meen) is silent in regards to wherein the non-decoding bit-plane determination step includes steps of: managing a table which stores, for each subband, a plurality of candidates, wherein each of which a candidate represents a number of lower bitplanes or lower sub-bitplanes that are not to be decoded, wherein each of the plurality of candidates is associated with an index, wherein, for each subband, increasing values of the plurality of candidates are arranged in an increasing order or values of associated indices, controlling a value of a variable Q in accordance with the accumulated time difference TT; selecting a candidate associated with an index corresponding to the variable Q, for each subband from the table, and setting lower bitplanes or lower sub-bitplanes, corresponding to the selected candidate, as the bitplanes or sub-bitplanes that are not be decoded.

However, Van Der Schaar teaches wherein selecting a candidate associated with corresponding to the variable Q for each subband from the table, (Van Der Schaar discloses in the exemplary embodiments, the quality of the FGS decoded images is determined at the decoder side (where the original image is not present), and subsequently, the decoder uses the computed quality to determine how many bit-planes can be discarded to reduce the complexity without lowering image quality below a desired quality level, [0020]. Further disclosed is that the number of bit-planes to be discarded may be determined once for each image sequence, and remain constant

throughout that sequence, [0035]. Alternatively, the decoder can omit step 308, and discard any bit-planes that are not desired to be decoded by the user, [0041]. Van Der Schaar discloses that the decoder uses the computed quality to determine how many bit-planes can be discarded to reduce the complexity without lowering image quality below a desired quality level number of bit planes and that the number of bit planes to be discarded are determined for each image sequence and the decoder can discard any bit-planes that are not desired for decoding by the user, it is clear to the examiner that Van Der Schaar discloses to select a candidate from the sub bands based that are not be decoded based on quality, which reads upon the claimed limitation. Note: since Van Der Schaar discloses to discard any bit-planes, it is clear to the examiner that all bit-planes are considered to be candidates.), and setting lower bitplanes or lower sub-bitplanes, corresponding to by the selected, candidate as the bitplanes or sub-bitplanes that are not be decoded (Van Der Schaar discloses where alternatively, the decoder can omit step 308, and discard any bit-planes that are not desired to be decoded by the user [0041]. Since Van Der Schaar discloses the decoder can discard any undesired bit-plane by the user, it is clear to the examiner that discarding any bit-plane would encompass a lower bit plane or lower sub-bitplane, which reads upon the claimed limitation), controlling a value of a variable Q in accordance with time difference (Van Der Shaar teaches an image quality value corresponding to a decoding time that exceeds the capacity of the batter of the device containing the decoder should not be displayed as an a option. The displayed resource measure may be the time to decode the stream of data with the respective image quality, [0038]. Therefore, it is clear o the

Examiner that Van Der Shaar discloses quality is based on the decoding time, which reads upon the claimed limitation).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Eiji (modified by Meen) with Van Der Schaars' teaching of dynamically adjusting the decoded bit-planes to provide a more efficient encoding and decoding of bit-planes while upholding image quality [0006].

The Eiji (modified by Meen and Van Der Schaar) does not explicitly teach managing a table which stores, for each subband, candidates each of which a candidate of the number of lower bitplanes or lower sub-bitplanes which are not to be decoded.

However, Sato teaches managing a table which stores, for each subband, a plurality of candidates, wherein each candidate represents a number of lower bitplanes or lower sub-bitplanes that are not to be decoded (Sato discloses in the example of FIG. 8, tables (sets) 0 through 7 are provided, and each table indicates the number of bit planes to be discarded in each sub band counting from the4 LSB plane, [0056]. Additionally, the table data such as the illustrated in FIG.8 are able to limit the degradation of the image quality of the resulting image upon its decoding with respect to the required compression rate. This is done by determining the bit plane to be discarded so that the ones which are least likely to influence the image quality upon decoding the image will be selected in due order [0078]. Since Sato discloses the table is used to limit the degradation of image quality by discarding bitplanes, it is clear to the examiner that by determining the bitplanes to be discarded would necessitate managing the table).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teachings of Sato with Eiji (modified by Meen and Van Der Schaar) for improving image quality.

Eiji (modified by Meen, Van Der Shaar and Sato) is silent in regards wherein each of the plurality of candidates is associated with an index, wherein, for each subband, increasing values of the plurality of candidates are arranged in an increasing order or values of associated indices.

However, Oki teaches wherein each of the plurality of candidates is associated with an index (resolution), wherein, for each subband, increasing values of the plurality of candidates are arranged in an increasing order or values of associated indices (In fig. 8D, the bit stream is formed in units of subbands, which arranged in turn from a subband having a low resolution in ascending order of resolution. Furthermore, in each subband, codes are set in units of bit planes, i.e., in the order for an upper bit plane to a lower bit plane, and fig. 8D, column 9 line 5-12. Therefore, it is clear to the examiner that Oki discloses to arrange the subbands in ascending order based on the resolution, which reads upon the claimed limitation).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teachings of Oki with Eiji (modified by Van Der Shaar, Sato) for improving image quality.

Eiji (modified by Meen, Van Der Shaar, Sato and Oki) as whole does not explicitly disclose summing each calculated time difference ΔT to obtain an accumulated time difference TT.

However, Meen does discloses the video decoder 160 is provided with a video delta calculator module 215, which sends time stamped _dtvs and _ptvs (signal 220) to storage subsystem 180 [0039]. Since Meen discloses the delta calculator module sends time stamped _dtvs, it is clear to that Meen discloses a plurality of _dtvs. However, it would have been obvious to one of ordinary skill in the art to sum the plurality of time differences for providing more efficient image coding.

Regarding **claim 7**, Eiji (modified by Meen, Van Der Schaar, Sato, and Oki) as a whole teaches everything as claimed above, see claim 1. In addition, Eiji teaches The method according to claim 1, wherein subband decomposition for generating the encoded moving image data is attained by two-dimensional discrete wavelet transformation ([0010]), and the subband composition step includes a step of compositing the frame data using two-dimensional inverse discrete wavelet transformation (wavelet reverse converter, [0049] and fig 4).

Regarding **claim 8,** Eiji (modified by Meen, Van Der Schaar, Sato, and Oki) as a whole teaches everything as claimed above, see claim 1. In addition, Eiji teaches the method according to claim 1, wherein the predetermined unit is a frame or a block obtained by segmenting a frame into a plurality of blocks ([0003] and [0042]).

Regarding **claim 9**, see rejection and analysis of claim 1, except this is a claim to an apparatus with the same limitations as claim 1.

Regarding **claim 10**, the rejection and analysis made in claim 1 also apply here. Eiji (modified by Meen, Van Der Schaar, Sato, and Oki) as a whole teaches a

processor-based system. Hence a program that can execute an information processing apparatus, for executing the necessary steps corresponding to the decoding method of claim 1 would have been inherent.

Further regarding **claim 10**, Eiji (modified by Meen, Van Der Schaar, Sato, and Oki) as a whole teaches everything as claimed above, see claim 1. Eiji is silent in regards to a computer-readable medium, storing a program, in executable form, for causing an information processing apparatus, to perform a moving image decoding method according to claim 1.

However, Van Der Schaar teaches computer-readable medium, storing a program, in executable form, for causing an information processing apparatus, to perform a moving image decoding method according to claim 1 ([0059]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Eiji (modified by Meen, Sato, and Oki) with Van Der Schaar to provide an increased efficiency of video encoding and decoding while using existing computer hardware.

As to **claim 24**, Eiji (modified by Meen, Van Der Shaar, and Oki) as a whole teaches everything as claimed above, see claim 1. Eiji is silent in regards to the method according to claim 1, wherein the value of the variable Q is decreased, when the accumulated time difference TT is larger than a first threshold, and the value of the variable Q is increased, when the accumulated time difference TT is smaller than a second threshold.

However, Meen does discloses the video decoder 160 is provided with a video delta calculator module 215, which sends time stamped _dtvs and _ptvs (signal 220) to storage subsystem 180 [0039]. Since Meen discloses the delta calculator module sends time stamped _dtvs, it is clear to that Meen discloses a plurality of _dtvs. However, it would have been obvious to one of ordinary skill in the art to sum the plurality of time differences for providing more efficient image coding.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teaching of Meen with Eiji for efficient image coding.

However, Van de Shaar teaches an image quality value corresponding to a decoding time that exceeds the capacity of the batter of the device containing the decoder should not be displayed as an option. The displayed resource measure may be the time to decode the stream of data with the respective image quality, [0038]. Therefore, it is clear o the Examiner that Van Der Shaar discloses quality is based on the decoding time, which reads upon the claimed limitation). Now taking the teachings of Van Der Shaar incorporated with Eiji (modified by Meen) now discloses where the quality is based upon the summed time differences.

Eiji (modified by Meen and Van Der Shaar) as a whole is silent in regards to a quality threshold.

However, Ancessi teaches system 100 determines that frame compression is complete if either the image quality for each block meets a specified image quality threshold, column 10 line 31-33. Therefore, taking the teachings of Eiji (modified by

Meen and Van Der Shaar) where quality is based upon the summed time differences, with the teachings of Ancessi teaching of a quality threshold, it is clear to the Examiner that now disclosed is the image quality threshold is based upon the summed time differences, which reads upon the claimed limitation).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teachings of Ancessi with Eiji (modified by Meen, Van Der Shaar, Sato, and Oki) for providing improved image coding.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JESSICA ROBERTS whose telephone number is (571)270-1821. The examiner can normally be reached on 7:30-5:00 EST Monday-Friday, Alt Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha D. Banks-Harold can be reached on (571) 272-7905. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Marsha D. Banks-Harold/
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